UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,213	07/17/2006	Richard Ganley	19036/41595	7568

4743 7590 08/14/2008

MARSHALL, GERSTEIN & BORUN LLP
233 S. WACKER DRIVE, SUITE 6300
SEARS TOWER
CHICAGO, IL 60606

EXAMINER	
LY, NGHI H	

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
08/14/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/564,213	GANLEY ET AL.	
	Examiner	Art Unit	
	Nghi H. Ly	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *01/10/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 19 and 34 are objected to because of the following informalities:

Regarding claim 19, lines 23-24, claim recites "and and". Appropriate correction is required.

Regarding claim 34, a period "." should have at the end of the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-13 and 15-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Taniguchi et al (US 6,987,949).

Regarding claims 1-3 and 21-23, Taniguchi teaches a transmitter of a wireless microphone (see Title and Abstract) comprising: an infrared interface (see column 3, lines 50-59 and column 4, line 16 to column 5, line 9), a control portion (see column 7, lines 44-57 and column 7, lines 63-67, see "process"), a storage portion (see Abstract and column 3, line 60 to column 4, line 15), and a function control portion that controls a

function of the wireless microphone, wherein the transmitter has one of or both of an information transmission function and an information reception function (see column 7, lines 44-57 and column 7, lines 63-67), the information transmission function is to transmit (see column 1, lines 19-51 and column 3, lines 50-59), through the infrared interface (see column 3, lines 50-59), information regarding the wireless microphone which is stored in the storage portion (see Abstract and column 3, line 60 to column 4, line 15), and the information reception function is to receive the information regarding the wireless microphone through the infrared interface and to control the function control portion by the control portion according to the information regarding the wireless microphone to thereby control the function of the wireless microphone (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61).

Regarding claims 4 and 9, Taniguchi teaches a wireless microphone communication system comprising: an infrared signal transmitting device (see column 3, lines 50-59), and an infrared signal receiving device (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61), wherein the infrared signal transmitting device is a receiver for a wireless microphone that has at least an information transmission function (see column 3, lines 50-59), or a portable information communication device that has at least the information transmission function (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61), wherein the infrared signal receiving device is a transmitter of the wireless microphone according to claim 1 that

has at least an information reception function (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61), or a portable information communication device has at least the information reception function, wherein the infrared signal transmitting device is configured to transmit (see column 3, lines 50-59), using the information transmission function (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61), information regarding the wireless microphone through the infrared interface (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61), and wherein the infrared signal receiving device is configured to receive (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61), using the information reception function, the information regarding the wireless microphone that is transmitted from the infrared signal transmitting device, through the infrared interface (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61).

Regarding claim 5, Taniguchi teaches the information regarding the wireless microphone is command information (see column 3, lines 50-59), and the command information is to command the transmitter of the wireless microphone to control a function of the wireless microphone (see column 3, lines 50-59).

Regarding claim 6, Taniguchi teaches the command information is information regarding an amplitude frequency characteristic of a sound signal, and the command information is to command the transmitter of the wireless microphone to control the

amplitude frequency characteristic of the sound signal (see Abstract and column 1, lines 19-51).

Regarding claim 7, Taniguchi teaches the command information is information regarding a gain of a sound signal, and the command information is to command the transmitter of the wireless microphone to control a gain given to the sound signal (see Abstract and column 1, lines 19-51).

Regarding claim 8, Taniguchi teaches the command information is information regarding a frequency of a carrier wave, and the command information is to command the transmitter of the wireless microphone to control the frequency of the carrier wave (see column 1, lines 33-65, column 2, lines 14-46 and column 14, line 60 to column 15, line 9).

Regarding claim 9, Taniguchi teaches the command information is information regarding an output level of a carrier wave, and the command information is to command the transmitter of the wireless microphone to control the output level of the carrier wave (see column 1, lines 33-65, column 2, lines 14-46 and column 14, line 60 to column 15, line 9).

Regarding claim 10, Taniguchi teaches the command information is information regarding whether or not to permit a setting condition of the transmitter to be changed (see column 3, lines 50-59), and the command information is to command the transmitter of the wireless microphone to enable or disable an operation portion of the transmitter of the wireless microphone to change the setting condition (see column 3, lines 50-59).

Regarding claim 11, Taniguchi teaches the command information is information regarding deviation (see column 3, lines 50-59), and the command information is to command the transmitter of the wireless microphone to control the deviation (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61).

Regarding claim 12, Taniguchi teaches the command information is information regarding a pilot tone, and the command information is to command the transmitter of the wireless microphone to start or stop transmission of the pilot tone (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61).

Regarding claim 13, Taniguchi teaches the command information is information regarding a display, and the command information is to command the transmitter of the wireless microphone to cause the display into an operating state or a non-operating state (see column 3, lines 50-59).

Regarding claim 15, Taniguchi teaches the command information is information regarding a mute function (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61), and the command information is to command the transmitter of the wireless microphone to cause the mute function into an operating state or a non-operating state (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61).

Regarding claim 16, Taniguchi teaches the information regarding the wireless

microphone is attribute information (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61), and the attribute information is to inform the infrared signal receiving device of attribute of the transmitter of the wireless microphone (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61).

Regarding claim 17, Taniguchi teaches the attribute information is information regarding a type of a battery used in the transmitter of the wireless microphone (see column 8, lines 26-37).

Regarding claim 18, Taniguchi teaches the attribute information is information regarding a number or a name assigned to the transmitter of the wireless microphone (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61).

Regarding claim 20, Taniguchi teaches the reply request information is to request the transmitter of the wireless microphone to inform a setting condition of the transmitter, and wherein the reply information is information regarding the setting condition of the transmitter of the wireless microphone (see column 7, line 58 to column 8, line 25).

Regarding claim 24, Taniguchi teaches a wireless microphone communication system comprising: an infrared signal transmitting device (see column 3, lines 50-59), and an infrared signal receiving device, wherein the infrared signal transmitting device is a receiver for a wireless microphone according to claim 22, and wherein the infrared signal receiving device is a transmitter of the wireless microphone (see column 3, lines

50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61).

Regarding claim 25, Taniguchi teaches the information in the form of the infrared signal is command information, and wherein the transmitter of the wireless microphone is configured to control a function of the wireless microphone according to the command information, upon receiving the command information (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61).

Regarding claim 26, Taniguchi teaches the infrared signal transmitting device is a receiver for the wireless microphone, wherein the receiver has one of or both of an information transmission function and an information reception function (see column 3, lines 50-59), the information transmission function is to transmit, through the infrared interface, information regarding the wireless microphone, and the information reception function is to receive (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61), through the infrared interface, the information regarding the wireless microphone (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61).

Regarding claim 27, Taniguchi teaches the infrared signal transmitting device is a portable information communication device comprising: an infrared interface, and a storage portion (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61), wherein the portable information communication device has one of or both of an information transmission function and an

information reception function, the information transmission function is to transmit, through the infrared interface (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61), information regarding the wireless microphone which is stored in the storage portion (see column 3, lines 50-59, column 4, lines 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61), and the information reception function is to receive, through the infrared interface, the information regarding the wireless microphone and to store the information in the storage portion (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61).

Regarding claim 28, Taniguchi teaches the portable information communication device has both an information reception function and an information transmission function (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61).

Regarding claim 29, Taniguchi teaches the first infrared signal transmitting device is a receiver for the wireless microphone, wherein the receiver has one of or both of an information transmission function and an information reception function (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61), the information transmission function is to transmit, through the infrared interface, information regarding the wireless microphone, and the information reception function is to receive (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61), through the infrared interface, the information regarding the wireless microphone (see column 3, lines 50-59,

column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61).

Regarding claim 30, Taniguchi teaches the first infrared signal transmitting devices is a portable information communication device comprising: an infrared interface (see column 3, lines 50-59), and a storage portion (see Abstract and column 3, line 60 to column 4, line 15), wherein the portable information communication device has one of or both of an information transmission function and an information reception function (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61), the information transmission function is to transmit, through the infrared interface, information regarding the wireless microphone which is stored in the storage portion, and the information reception function is to receive (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61), through the infrared interface, the information regarding the wireless microphone and to store the information in the storage portion (see Abstract and column 3, line 60 to column 4, line 15).

Regarding claim 31, Taniguchi teaches the first portable information communication device has both an information reception function and an information transmission function (see column 3, lines 50-59).

Regarding claim 32, Taniguchi teaches the second infrared signal and receiving device is a portable information communication device comprising: an infrared interface (see column 3, lines 50-59, and a storage portion (see Abstract and column 3, line 60 to column 4, line 15), wherein the portable information communication device has one of

or both of an information transmission function and an information reception function, the information transmission function is to transmit (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61), through the infrared interface (see column 3, lines 50-59), information regarding the wireless microphone which is stored in the storage portion (see Abstract and column 3, line 60 to column 4, line 15), and the information reception function is to receive, through the infrared interface (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61), the information regarding the wireless microphone and to store the information in the storage portion (see Abstract and column 3, line 60 to column 4, line 15).

Regarding claim 33, Taniguchi teaches the infrared signal transmitting device is a portable information communication device comprising: an infrared interface (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61), wherein the portable information communication device is configured to transmit, through the infrared interface (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61), information in a form of an infrared signal to control a function of a transmitter of the wireless microphone (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61).

Regarding claim 34, Taniguchi teaches the infrared signal receiving device is a transmitter of a wireless microphone comprising: an infrared interface (see column 3, lines 50-59), a control portion , and a function control portion that controls a function of

the wireless microphone (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61), wherein the control portion is configured to control the function control portion according to information sent through the infrared interface to thereby control the function of the wireless microphone (see column 3, lines 50-59, column 4, line 47 to column 5, line 9, column 13, lines 18-34 and column 13, lines 42-61).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi et al (US 6,987,949) in view of Ahn (US 6,038,429).

Regarding claim 14, Taniguchi teaches claims 1-3 and 21-23. Taniguchi does not specifically disclose the command information is information regarding a compander, and the command information is to command the transmitter of the wireless microphone to control a characteristic of the compander.

Ahn teaches the command information is information regarding a compander (see Abstract, column 1, line 17-42 and column 3, lines 63-67), and the command information is to command the transmitter of the wireless microphone to control a characteristic of the compander (see Abstract, column 1, line 17-42 and column 3, lines 63-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Ahn into the system of Taniguchi in order to improve the signal-to-noise ratio of the citizen's band radio (see Ahn, Abstract).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (571)272-7911. The examiner can normally be reached on 9:30am-8:00pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nghi H. Ly

/Nghi H. Ly/
Primary Examiner, Art Unit 2617